

MailMerge™/125
Reference Manual



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MailMerge/125
Reference Manual

(This manual consists of Chapters 9-12
of the WordStar/125 Reference Manual.
Insert in your WordStar/125 Reference Manual.)

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Section 9 The MailMerge Option: Form Letters

The MailMerge command is the enhanced print capability supplied with the MailMerge option package for MicroPro's WordStar 2.0 and later releases. The MailMerge command performs the same function as WordStar's regular print command (except it does not permit using the edit function to edit another document while printing is in progress), with additional capabilities to permit production of form letters, insertion of variable data into a document during printout, insertion of other named files in the printout, and printing multiple duplicate copies of a document.

MailMerge's insertion capabilities include automatic reforming of paragraphs containing insertions, to maintain margin alignment and justified or ragged right appearance matching the input despite varying lengths of inserted texts.

While a major use of the MailMerge command is to produce form letters, MailMerge provides many facilities which are useful even in documents of which only a single copy is produced at a time -- such as insertion of boiler plate paragraphs from other files and specification of variable values at the beginning of the document for insertion at multiple places in the text.

The MailMerge package includes Sections 9-12 of this manual and a file (MAILMRGE.OVR) which must be present on the diskette in drive A (or the logged drive) whenever the MailMerge command is to be used.

If your MAILMRGE.OVR file is supplied on a separate diskette, you must run a program called PRIME, also supplied on the diskette, before you use the diskette in any way. See the Installation Manual. Run PRIME according to the instructions in that manual.

Before attempting to use MailMerge, copy files off the MailMerge distribution diskette, back up the diskette, before making any use of the diskette.

OVERVIEW OF MAILMERGE CAPABILITIES

In addition to the capabilities of the regular print command (P or ^KP), the capabilities of the MailMerge command (M on the no-file menu) include those summarized in the following paragraphs. Sections 9-12 explain these capabilities in greater detail.

Inserting Variable Information

MailMerge can insert variable data into a document and automatically print a copy for each set of values. For example, a personalized letter can be produced for each name and address on a mailing list. The letter is prepared with the edit function in the usual manner, with imbedded directives added to control the insertion of data. The texts to be inserted may be read from a data file, entered by the operator during printout, and/or set at the beginning of the document for insertion at multiple places in the document.

Data Files

Data files containing mailing lists or other information to be inserted into documents may be prepared with WordStar's edit function or with MicroPro's screen-oriented data entry program, DataStar. The compatible format used also allows generation of data files by programs in BASIC or other languages.

Inserting Another File

The document being printed may invoke another document file by name during printout. Printing proceeds as though all text and commands in the inserted file were present in the invoking file in place of the command (.FI) used to invoke the insertion. After the inserted document has been completely printed, printing of the invoking document continues. The inserted document may in turn invoke insertion of other documents into itself, if desired, to a maximum "nesting level" of 8 documents. Insertion of variable information and reformatting may be performed during printout of the inserted file. As with a main document, a document inserted at print time can be processed repeatedly as variable information from a data file is merged (inserted) into it.

Boiler Plate Paragraphs

Text used in multiple documents may be entered onto separate files, then later invoked using the file-insertion facility from other documents as desired. Variable information, such as the names of parties to a contract, may be inserted into the boiler plate during MailMerge.

Command Files

A "document" file may consist primarily or only of print directives, with the actual text printed coming from additional files inserted at print time. This permits performing complex printing operations with a single operator invocation, such as printing letters from a mailing list then printing envelopes from the same mailing list. A large document, such as a book, might be maintained on a separate document file for each section or chapter; when a complete printout is desired, a command file could be used to print the chapters in sequence.

Changing a Diskette

A diskette change can be requested at invocation of a data file or an inserted document file. Thus, the book mentioned in the previous paragraph could have chapters on separate diskettes and still be printed with one invocation of MailMerge.

Screen Display and Input

Commands may be imbedded in a document file to cause messages to the operator to be displayed on the screen during printout, and to request operator input of variable information. MailMerge also displays error messages for invalid commands, and instructs the operator when diskette change is required.

Printing Multiple Copies

A command may be imbedded in a document to cause repeated processing of the document. Such repetition also occurs automatically when variable information is read from a data file. In addition, the operator is given an opportunity to request multiple duplicate copy printing when MailMerge is invoked. This facility complements the repeated processing that may be invoked by commands in the file, permitting production of two or more copies of each letter printed from a mailing list, or two entire copies of the book mentioned in a preceding example.

Print-Time Formatting

The forming of text into lines, normally done during text entry with WordStar's edit function, is also performed by MailMerge. Line-forming (to match the margins of the document being printed) occurs automatically at variable insertions, so that printed paragraphs will appear correct even if the inserted information varies in length. Print-time line-forming may also be invoked by commands in the document, permitting reformatting of boiler plate to match the document in which it is being used, and permitting printout with different margins (or line spacing) than used on the screen during text entry.

The following sections will describe MailMerge's various capabilities. We will start with a commonly used application, producing form letters using a mailing list recorded on a data file, then proceed to operator entry of information during printout, boiler plate, and other applications.

The various commands used in document files to be used with MailMerge will be introduced individually as required; a reference summary in Appendix A reviews all of the commands. Section 12 has a full description of MailMerge operation, including invocation of MailMerge, interruption of printing, and resumption of printing.

FORM LETTERS AND DATA FILES



This subsection introduces a number of MailMerge's capabilities, using a form letter as an example. The techniques described here may be used to produce any document of which multiple copies are desired using variable information which comes from a data file on diskette. (On later pages, we will describe alternate sources for the information which varies from copy to copy of the document).

Suppose you wish to send a letter to all of your customers announcing a new product. Further, let's suppose you wish to maintain a data file on disk containing the names and addresses of all of your customers, so that other communications may easily be sent to them in the future.

The copy of the letter for one recipient might look like the following. Other customers would get similar letters, but with the appropriate company name, address, and salutation.

June 16, 1980

NORCAL Computers
 1600 Highland Avenue
 Alameda, California
 94501

Dear Mr. Smith,

We would like to announce the availability of WordStar 2.0 together with the MailMerge option. We believe many of the customers of NORCAL Computers will like the enhanced capabilities provided by the MailMerge option, including the ability to make attractively-formatted insertions in mid-paragraph in form letters.

Sincerely,

Chip Pood
 Director of Marketing

When preparing a form letter, we suggest that you first roughly type up one copy to help you identify the parts of the text which will vary from copy to copy (the "variable information"). The actual document which MailMerge will use to produce individualized letters is then prepared with the WordStar edit function in the usual manner, but with special print directives added. (To print the letters by the method being described here, a separate data file containing the variable values for each letter is also used, as we will describe shortly.) The document file from which the letters are printed might be as follows:

```
.. file EX1.LET
.OP
.DF ADDRESS1.DAT
.RV COMPANY, ADDR1, ADDR2, ADDR3, NAME
```

June 16, 1980

```
&COMPANY&
&ADDR1&
&ADDR2&
&ADDR3&
```

Dear &NAME&,

We would like to announce the availability of WordStar 2.0 together with the MailMerge option. We believe many of the customers of &COMPANY& will like the enhanced capabilities provided by the MailMerge option, including the ability to make attractively-formatted insertions in mid-paragraph in form letters.

Sincerely,

Chip Pood
 Director of Marketing

.PA

A sample printout resulting from using MailMerge with the above document is shown at the end of this subsection.

To make the letter appear hand-typed, the text was entered with justification off (^OJ command). A number of dot commands (print directives with a period in the first character position) were added to the text; we will discuss these shortly. Each place a piece of variable information (text different in each copy) was to print, a symbolic name enclosed in &'s was entered.

Variable Names

In a document into which variable information is to be inserted by MailMerge, each piece of information (each individual variable) is identified by a name chosen by the user. The names may consist of 1 to 40 letters; digits and -'s are also allowed except not as the first character. While we suggest that you choose variable names that represent the type of information to be printed, you may choose any name you wish as long as the same name is always used within the same document for the same piece of information and the name is distinct from the names used in the document for other pieces of information.

In our example, the variable values or data (the actual texts to be printed in each letter) come from a data file. (The .DF and the .RV dot commands shown control the reading of the data file, as will be detailed later.)

Insertion Points

In each place a piece of variable information is to be inserted in the printout, enter an &, the name of the variable, and another &. For example, the line

Dear &NAME&,

will print as

Dear Mr. Smith,

if the datum for the variable "NAME" was "Mr. Smith".

The name used for the variable must of course be the same at all places where the variable is used, as well as in whatever dot command (.RV in our example) determines the actual values to print in each letter.

Ampersands (&) are always used before and after a variable name where the variable value is to be inserted in the text.

Ampersands are not used in a dot command that gets the value for a variable, such as the .RV in our example. (If ampersands are used in a dot command, MailMerge will insert the variable's value into the dot command before executing the dot command. This insertion into dot commands has useful applications, some of which will be described later, but incorrect operation will result if &'s are used where not intended.)

Ampersands (&) may also be used in the normal manner in the text as desired. If there isn't a second & nearby, or if the text between the ampersands is not the name of a variable which has an associated value, then the ampersands are printed normally.

You can also see that a number of dot commands, some familiar and some new, were added to the text in the above example. Recall that a dot command, as defined in the **General Information Manual**, is a print directive that begins with a period in column 1. MailMerge can execute all of the regular print dot commands, as described in Sections 7 and 8.

In the above example, the line beginning with .. is a comment line, passed up without processing during printing. The .OP command at the beginning prevents the usual printing of a page number at the bottom of the page. If you want the page(s) of the letter numbered, omit the .OP and place a .PN 1 at the beginning of the letter, otherwise the page number will keep increasing through successive letters. **Always use either .OP or .PN in a form letter.** The .PA ends the page, causing the next letter to begin at the top of the next page inserted into the printer. Always place a .PA command at the end of a form letter.

In addition to the regular dot commands, MailMerge interprets a number of additional dot commands. In the above example, the .DF and the .RV commands are MailMerge dot commands used to control the reading of variable values from a data file. We will describe these two dot commands after introducing data files.

To print the form letters in our example, a **data file** is necessary. The data file provides the texts to be inserted in each letter for the variables COMPANY, ADDR1, ADDR2, ADDR3, and NAME. The data file must be named ADDRESS1.DAT on the logged disk drive. (A different data file name or drive could be used in our example by changing the .DF dot command line).

Format of a Data File

A data file consists of lines (records), with each line containing the data (variable values) to be used in one letter (or other document). Within the line, the data items (fields) are separated by commas. If a data item contains a comma, enclose the data item in quotes (") to tell MailMerge not to interpret the comma as a data item separator. After the last data item to be used in a letter, there must be a carriage return; after the carriage return (i.e. on the next line) the data for the next letter begins.

The data file (ADDRESS1.DAT) for our example might appear as follows:

```
NORCAL Computers,1500 Highland Avenue,"Alameda, California",94501, Mr. Smith  
TRIAD, 1829 Santa Clara Road, "Malad City, Idaho", 83251, John  
Wolcott Associates,16 Rue Diesel, "Casteau, Belgium",APO 09055,Mr. Baudoin
```

The above data file contains three sets of values (three records) and will result in the printing of three letters. A data file may, of course, contain many more sets of values; the size of a data file is limited only by diskette capacity.

Notice that the values on a line are always in the same order -- they correspond in order to the variables COMPANY, ADDR1, ADDR2, ADDR3, NAME in our letter. The values in a data file must always be in the same order, and the order must correspond to the order of variable names in the .RV command (to be detailed shortly) in the letter.

Note that quotes were used around the "city, state" items in each line. These are values for the ADDR2 variable; the quotes indicate that the city and state are to be read as a single value, including the comma but excluding the quotes. Quotes should also be used if spaces are to be included at the beginning or end of a value; otherwise, MailMerge discards any spaces before or after each data item in the data file. If desired, quotes may be used around all data items.

A data file may be entered (created or updated) with WordStar, or by using MicroPro's screen-oriented data entry program, DataStar. DataStar is recommended for high-volume data entry and maintenance, as it provides advantages in speed, data checking, and ease of on-screen review and alteration of data; WordStar is sufficient to get started and for moderate-volume work.

Using WordStar to Enter a Data File

To enter a data file using WordStar, use the Non-document edit (N) command. The N command defaults word wrap off, which will prevent accidental entry of unwanted (soft) spaces and carriage returns into the data file. After pressing N at the no-file menu, enter the desired file name in the usual manner, and press RETURN. The file name must match that in the .DF command in the letter file. Then type the desired data with a comma after each item and quotes before and after any items which contain imbedded commas. Press RETURN after each record (after the last data item to be used in each letter). End the edit with ^KD as usual.

Some of the lines may be wider than the screen. In these cases, you will see a "+" at the rightmost column of the screen. These lines will work correctly with MailMerge. (If you prefer, you may press the RETURN key instead of comma between long data items to obtain a clearer screen display. Do not use both comma and RETURN, and do not use RETURN in the middle of a data item.)

Do not use paragraph reform (^B) on a data file, nor allow word wrap to occur, as the soft carriage returns these functions insert will be interpreted the same as hard carriage returns when MailMerge reads the data file.

If you wish to omit an item (perhaps a zip code that you don't know) or leave a value blank, enter the comma that goes after the value anyway, to make sure that the other values are read correctly. Otherwise, MailMerge will read the next item on the line into the variable you intended to omit.

Check the data file over visually to make sure that each value has been entered correctly, and that each line contains the correct number of values and commas. Later, we will describe how to check a data file by using MailMerge with a short document that contains an insertion of (reference to) each variable.

Reading Variables from a Data File

Two of MailMerge's dot commands must be used in a form letter (or other document) when the variable information to be inserted is to be obtained from a data file:

`.DF` specifies the name of the data file

`.RV` specifies the names of variables and order of values

The presence of both of these commands in the letter causes MailMerge to process the letter repeatedly until all of the data is used up. For each set of values (record) in the data file, MailMerge will process the letter document file again, starting at the beginning of the file, interpreting all dot commands and printing all text in the usual manner. Thus, if there are 200 sets of names and addresses in ADDRESS1.DAT, using MailMerge with our example will print 200 letters.

More detailed descriptions of these dot commands follow.

Specify Data File (`.DF` filename)

The `.DF` command specifies a file to be used to obtain variable values by subsequent `.RV` command(s). If the file is not found, a message is displayed.

The presence of `.DF` (and `.RV`) causes the document to be processed repeatedly until all data in the specified data file has been used. (The `.DF` is ignored when encountered during repeat processing, provided that it specifies the file already in use and the data has not already been exhausted.)

Only one data file may be in use (at a time); a document should (normally) only contain one `.DF` command.

The word `CHANGE` may be entered after the file name to cause MailMerge to ask the operator to insert a different diskette before execution of the command, as will be detailed later. Examples:

```
.DF ADDRESS1.DAT
```

Take values for variables named in subsequent `.RV` commands from file ADDRESS1.DAT on the logged disk drive. Print document containing the `.DF` command repeatedly until a copy has been printed for each set of values in the data file.

```
.DF B:DATA3.DTA CHANGE
```

Ask operator to change diskette in drive B. Take data from file DATA3.DTA on drive B. Print document repeatedly until data used up.

Read Values (.RV variable1, variable2, variable3, ..)

The .RV command causes values for indicated variable or variables to be read from the data file named in a preceding .DF command.

The order of variable names in the .RV command must correspond to the order of values in the data file. The first data item in a record (line) in the data file is the value for the variable named first in the .RV command.

The variables may be subsequently used in the document in any order and any number of times apiece.

One .RV is normally used to read all data used in a document; however, multiple .RV's are allowed and are convenient if there are many variables or long variable names are being used.

Caution

If there are insufficient data items (separated by commas) on a line in the data file, .RV will pass a carriage return and go to the next data file line in order to obtain values for all variables named in the command.

Any unused values remaining on a data file line are discarded when the end of the document is reached; data used in each repeat processing of the document always starts at the beginning of a line. Example:

```
.RV COMPANY, ADDR1, ADDR2, ADDR3, NAME
```

Read values for the variables COMPANY, ADDR1, ADDR2, ADDR3, and NAME, in order, from the data file in use (as specified in preceding .DF command). For example, the next data item will be inserted into the current copy of the letter (or other document) in place of each occurrence of &COMPANY&.

Initiating MailMerge

At the no-file menu, enter M for MailMerge. WordStar will ask

```
NAME OF FILE TO MAILMERGE? █
```

Enter the name of the document to be printed (EX1.LET for our example), and press RETURN. A series of option questions, similar to those asked by the regular print command (Section 8) will follow. Pressing return will usually suffice for each, except you should answer Y to PAUSE BETWEEN PAGES if you wish to load individual letterhead pages into your printer for each letter.

Note

The NUMBER OF COPIES option question (which appears in MailMerge initiation only) specifies the number of **duplicate** copies. If you answer, 3 to this question, 3 copies of each letter will be printed.

While MailMerge is printing, the screen displays

P=STOP PRINT

which is one-entry "menu" showing that the only command which may be entered during MailMerge operation is "P", to stop the print. The lower part of the screen will show any error or warning messages produced by MailMerge, and may be used for messages to the operator or requests for data entry under the control of dot commands to be described later. If screen space permits, the file directory will remain on display if file directory display was left ON at the no-file menu.

At a print pause (invoked by entry of P, by the PAUSE BETWEEN PAGES option, or by a ^C in the document), the no-file menu reappears. Press P to resume printing.

Sample Output

Shown below is the output that results from using MailMerge with the example letter (EX1.LET) using the example data file (ADDRESS1.DAT), both shown several pages back. (Three pages of printout are actually produced; we have shown them on one page merely to save space.)

Since there are three lines in the data file, three letters are printed. Each letter has data items from the data file inserted in place of the variable references (&ADDR1&, &ADDR2&, &ADDR3&) in the document file.

Where a variable (&COMPANY&) was used in mid-paragraph, MailMerge reformed the lines (as though an ^B had been executed in the edit function) in the rest of the paragraph to adjust for the varying lengths of the company names.

At this point we recommend that you try MailMerge. Enter the letter and data files shown in this subsection, or think up some examples of your own, and see it work. Try it--you'll like it!

June 16, 1980

NORCAL Computers
1600 Highland Avenue
Alameda, California
94501

Dear Mr. Smith,

We would like to announce the availability of WordStar 2.0 together with the MailMerge option. We believe many of the customers of NORCAL Computers will like the enhanced capabilities provided by the MailMerge option, including the ability to make attractively-formatted insertions in mid-paragraph in form letters.

Sincerely,

Chip Pood
Director of Marketing

June 16, 1980

TRIAD
1829 Santa Clara Road
Malad City, Idaho
83251

Dear John,

We would like to announce the availability of WordStar 2.0 together with the MailMerge option. We believe many of the customers of TRIAD will like the enhanced capabilities provided by the MailMerge option, including the ability to make attractively-formatted insertions in mid-paragraph in form letters.

Sincerely,

Chip Pood
Director of Marketing



June 16, 1980

Wolcott Associates
16 Rue Diesel
Casteau, Belgium
APO 09055

Dear Mr. Baudoin,

We would like to announce the availability of WordStar 2.0 together with the MailMerge option. We believe many of the customers of Wolcott Associates will like the enhanced capabilities provided by the MailMerge option, including the ability to make attractively-formatted insertions in mid-paragraph in form letters.

Sincerely,

Chip Pood
Director of Marketing

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Section 10
The MailMerge Option:
Operator Input

OPERATOR DATA ENTRY

Section 9 showed how to produce form letters using data from a data file recorded on a diskette. In some cases where only a few letters are to be produced at a time, and where it is not desirable to record the data on a diskette for possible future use, it may be more convenient to skip the step of preparing a data file, and instead key the data in as each letter is being printed.

This section assumes you have read Section 9; familiarity with information presented there, particularly about variables, will be assumed.

Suppose you wish to send letters acknowledging orders received. Each one of these letters may be the same except for the name and address, the number of units ordered, and the ship date. While you may send many of these letters in a month, they are to be printed individually on the day each order is received. A typical letter might appear as follows:

June 16, 1980

NORCAL Computers
1600 Highland Avenue
Alameda, California
94501

Dear Mr. Smith,

We have received your order for three (3) WordStars together with your payment. Your order will be shipped on June 25, 1980.

Thank you,

Jane Janesfield
Director of Order Processing

To produce these letters with keyed-in data, you might prepare a document as follows on a file named EX2.LET:

```

.. file EX2.LET
.OP
.AV DATE--TODAY
.AV COMPANY
.AV ADDR1
.AV ADDR2
.AV ADDR3
.AV NAME
.AV QUANTITY
.AV SHIP--DATE

```

&DATE--TODAY&, 1980

```

&COMPANY&
&ADDR1&
&ADDR2&
&ADDR3&

```

Dear &NAME&,

We have received your order for &QUANTITY& WordStars together with your payment. Your order will be shipped on &SHIP--DATE&, 1980.

Thank you,

Jane Janesfield
Director of Order Processing

.PA

You can see that this file is similar in structure to the example used in the preceding subsection; the difference is that the .DF and .RV dot commands have been replaced with a number of .AV dot commands, one .AV for each variable. The year in each date was made part of the text, since it is easier to change the document once a year than to type the year each time a letter is printed.

The .AV dot command (Ask for Variable) asks the operator for the data value for the indicated variable. For example, when MailMerge encounters

```
.AV COMPANY
```

the following prompt will appear on the screen

```
COMPANY? █
```

The operator may key in the company name for the letter being printed, then press RETURN. Wherever &COMPANY& appears in the letter, the text entered by the operator will print instead. While keying in the data, the operator may use the usual WordStar control characters to make corrections--^S to back up one character, ^Y to erase the entire answer, and others as described in Section 3. However, once you have pressed RETURN, you can't modify your entry any further.

To use MailMerge with the example, enter M at the no-file menu, key in the file name EX2.LET, and press RETURN. WordStar will then ask for the variable data as specified by the .AV commands in the document. The screen will display the following as you are about to press RETURN for the last variable (operator typing underlined):

```
DATE-TODAY? June 21
COMPANY? Neighborhood Computer Center
ADDR1? 123 Forty-Fifth Street
ADDR2? Smalltown, New York
ADDR3? 01999
NAME? Customer
QUANTITY? twenty-seven (27)
SHIP-DATE? July 10 ■
```

After the last data item is entered, the letter will print, as follows:

June 21, 1980

Neighborhood Computer Center
123 Forty-Fifth Street
Smalltown, New York
01999

Dear Customer,

We have received your order for twenty-seven (27)
WordStars together with your payment. Your order will
be shipped on July 10, 1980.

Thank you,

Jane Janesfield
Director of Order Processing

Making the Letter Repeat

The above document prints a single letter each time it is used with MailMerge. To print another letter, it is necessary to enter the M command again at the no-file menu. If you wish to print several letters at a time, it is more convenient to have the letter repeat until stopped.

One way to invoke such repetition would be to enter a large number at the NUMBER OF COPIES? question, then terminate printing with the P command when all of your letters had been printed.

Another way, not requiring special operator action each time letters are to be printed, is to place

```
.FI EX2.LET          (or whatever the file name is)
```

at the end of the document file. This will cause the processing of the file to start over at the beginning each time the end is reached. (This is one of

many uses of the "File Insert" dot command; other uses are described later.) To cause a file to be repeatedly processed until stopped by the operator, place the dot command `.FI filename` at the end of the file, where "filename" is the file's own name.

With either of the above methods, MailMerge will ask for the data for one letter, print that letter, then start asking for the data items for the next letter.

For convenience, when a particular data item is the same as in the previous letter, entering `^R` (control-R) will restore the previous value. Press `RETURN` to use this value; the value may be edited if desired by moving the cursor left with `^S`, right with `^D`, and retyping characters as desired. For example, if the ship date is the same as in the preceding letter, press `^R` and `RETURN` when the prompt `SHIP-DATE?` appears. For the `DATE-TODAY`, this technique is particularly pertinent; later we will describe how to ask once for the date to be used in all letters.

Printing under either repetition method may be terminated by entering the `P` command when MailMerge is **not** asking for data. The `P` will not be effective if entered at a prompt for a data value; MailMerge will think the `P` is data. Hence, we suggest that you wait until the last desired letter has completely printed and the next data prompt (`DATE?` in our example) has appeared on the screen, then press `RETURN` and `P` in rapid succession. The `P` will be received before the next data prompt appears, and will be taken as a "stop print" command. The prompt

TYPE Y TO ABANDON PRINT, N TO RESUME, ^U TO HOLD: █

will appear on the screen; press `Y`.

In the above example, each data prompt produced by a `.AV` command appears below the preceding prompt; when the bottom of the screen is reached, the data entry area of the screen is scrolled up to make room for the next prompt. For a clearer display (and faster operation on terminals without a "line delete" function), place the command:

`.CS`

before the first `.AV`. This command erases the data entry area of the screen, and starts over at the top of the area. Placing it at the beginning of the letter will cause the prompts from the preceding letter to be cleared before the first prompt for the new letter appears.

The `.AV` command has two additional optional features you may wish to use. First, the prompt text to be displayed on the screen may be specified. This allows you to use any text, not necessarily the variable name, to request data entry. For example,

`.AV "Enter address line 2 as city, state: ", ADDR2`

will cause the prompt to appear on the screen as follows:

Enter address line 2 as city, state: █

Second, the number of characters the operator may enter may be restricted. This may be used as a data check, or to limit the data length to fit a particular format. If the operator enters too many keystrokes, the excess characters will not be accepted and will not appear on the screen. For example,

```
.AV ZIP, 5
```

will accept only five characters.

Ask for Variable (.AV ["prompt"], variable, [max-len])

The .AV command asks the operator to enter the data for a variable. The brackets above enclose optional items. The elements of the command are:

"prompt"	Text to display to request variable. Must be enclosed in quotes; either single quotes (') or double quotes (") may be used. If omitted, variable name, question mark, and a space are used.
variable	Name of variable being requested. Enclose this name in &'s at points in the following text where data entered is to be inserted. Do not use &'s in the .AV command.
max-len	Maximum number of characters to accept.

The usual control characters (^S=erase character, ^Y=erase entire answer, ^R=use present value of variable; see Table 1.3 for others) may be used to edit the text being entered. Press ^N to enter a carriage return INTO THE DATA. Press RETURN to terminate entry.

The maximum number of characters which may be entered is limited to the portion of the screen width remaining after the prompt is displayed, or to the max-len parameter if specified and smaller.

If a .AV is being executed (if a data entry prompt is displayed), and you wish to stop print, press RETURN and P in rapid succession.

Examples:

```
.AV NAME
```

```
.AV "enter name in the form LAST, FIRST: ", NAME
```

```
.AV 'City, State? ', ADDR2, 30
```

```
.AV ZIPCODE, 5
```

Finally, here is a sample letter, similar to that shown at the beginning of this subsection, but with a number of additional dot commands added. Can you identify the function of each command?

```

.. file EX2A.LET
.OP      Turn off page-numbering
.CS      Clear the screen
.AV "    Today's date? ", DATE-TODAY
.AV "    Company name? ", COMPANY
.AV "    Street Address? ", ADDR1
.AV "    City, State? ", ADDR2
.AV "Zip or other 3rd line? ", ADDR3
.AV '    Name or "Customer"? ', NAME
.AV "Quantity as words (number)? ", QUANTITY
.AV "    Shipping Date? ", SHIP-DATE

```

&DATE-TODAY&, 1980

```

&COMPANY&
&ADDR1&
&ADDR2&
&ADDR3&

```

Dear &NAME&,

We have received your order for &QUANTITY& WordStars together with your payment. Your order will be shipped on &SHIP-DATE&, 1980.

Thank you,

Jane Janesfield
Director of Order Processing

```

.PA
.FI EX2A.LET

```

DOCUMENTS FOR MAILMERGE

Previous subsections introduced a number of MailMerge features through form letter applications. This section will introduce additional features and other applications.

Document to Process Repeatedly

While all of the preceding examples have printed one-page letters, the document to be processed repeatedly (under the control of .DF and .RV, or by other methods) may print several pages, or only a few lines. For example, each processing of the document file might print one address label only.

When MailMerge starts processing a document again at the beginning, it does not do any of the following automatically:

- o Start a new page

- o Set page number to 1
- o Set the page format parameters (paper length, top margin, character width, etc) which can be changed with dot commands (Section 7) back to their original values.

If your document changes any of these items, and the value at the end of the document is not correct for the beginning of the next repetition of the document, then you must include commands at the end or the beginning of the document to reset the effected quantity.

As we noted above, a letter or any document intended to print a full page or an integral number of pages, and to be printed repeatedly with MailMerge, should end with a .PA, and should have a .PN 1 at the beginning if page number printing is not suppressed with .OP.

The lack of automatic paging and re-initialization when the document is re-processed for the next set of data provides flexibility, as will be shown in the examples which follow.

Formatted Printing of a Data File

A formatted printout of a data file gives you an easy-to-read record of your data, and an opportunity to check newly entered data before printing form letters. To make a formatted printout of a data file, create a document like a form letter but with no text other than one insertion of each variable, and no .PA. For example, to print the data file ADDRESS1.DAT shown in Section 9, you might use the following:

```

..ADDRESS1.FMT: file to print ADDRESS1.DAT
.DF ADDRESS1.DAT
.RV COMPANY, ADDR1, ADDR2, ADDR3, NAME
.CP 6

&COMPANY&
&ADDR1&
&ADDR2&
&ADDR3&
&NAME&

```

The .CP 6 command causes a new page to be started if less than 6 lines remain on the current page, so a data record will not be split between pages. Using MailMerge with the above will print out the data in the form:

```

NORCAL Computers
1500 Highland Avenue
Alameda, California
94501
Mr. Smith

TRIAD
1829 Santa Clara Road
Malad City, Idaho
83251
John

```

Several records will be printed on each page; page numbering and top and bottom margins will occur as usual. Errors such as a missing comma or a misspelled name are easier to detect in a formatted printout than if the data file were printed directly. We suggest you always print and check newly entered data in this manner, in order to reduce the necessity to reprint form letters due to data errors.

Mailing Labels

Mailing labels may be printed by a method similar to the above. The file must be laid out to match the format of the mailing label forms used; usually it is necessary to suppress the top margin (.MT 0; Section 7) and the bottom margin (.MB 0) for continuous forms labels. Also, of course, you will want to print only the address -- for the example file ADDRESS1.DAT, the NAME variable would be omitted.

To print ADDRESS1.DAT on (a hypothetical type of) continuous forms labels, you might use the document:

```
..ADDRESS1.LBL
.MT 0
.MB 0
.DF ADDRESS1.DAT
.RV COMPANY, ADDR1, ADDR2, ADDR3, NAME
```

```
&COMPANY&
&ADDR1&
&ADDR2&
&ADDR3&
```

```
.. file ends here
```

Note that the variable NAME is not used. It is not necessary to use all variables present in the data file. The number of blank lines before and after the variable insertions, and the number of spaces to the left of each variable, must be adjusted to position the printout on your forms as desired.

To print labels of any dimension in multi-column format, you must create a document that causes WordStar to apply microspace justification while it justifies the left edge of each name and address. In order to have your label information microspaced and justified, use the following technique.

To print three-column mailing labels, for example, you might create a document like this (setting tabs to coincide with left edges of second and third columns of labels):

```

..ADDRESS1.LBL
.MT 0
.MB 0
.DF ADDRESS1.DAT
.RV NAME1, COMPANY1, ADDR1, ADDR4
.RV NAME2, COMPANY2, ADDR2, ADDR5
.RV NAME3, COMPANY3, ADDR3, ADDR6

&NAME1& ^P<RETURN>
<TAB>                &NAME2& ^P<RETURN>
<TAB>                <TAB>                &NAME3& <RETURN>
&COMPANY1& ^P<RETURN>
<TAB>                &COMPANY2& ^P<RETURN>
<TAB>                <TAB>                &COMPANY3& <RETURN>
&ADDR1& ^P<RETURN>
<TAB>                &ADDR2& ^P<RETURN>
<TAB>                <TAB>                &ADDR3& <RETURN>
&ADDR4& ^P<RETURN>
<TAB>                &ADDR5& ^P<RETURN>
<TAB>                <TAB>                &ADDR6& <RETURN>

```



Using ^P followed by RETURN in the text causes a carriage return without a line feed, so that the line is overprinted by the next line. Consequently, the file does not print as it appears on the screen.

Press TAB on the second line to place the next variable in the second column. When the file is printed out, line two will print over line one, skipping over the entry in the first column because of the TAB. The third line you type starts with two TABS, which places the variable in the third column. The third line ends with a carriage return only (the ^P is omitted), so that the fourth line does not overprint the third, and actually becomes the second line of the printout. This process is repeated for the remaining variables, so that they line up in three columns.

When MailMerge reaches the end of the third line in the data file, it will assign the variable names in the first .RV line to the fourth line in the data file, and so on.

To adjust spacing for the size of the labels you're using, you will have to experiment with line height (.LH) or page length (.PL), and top and bottom margin settings (.MB and .MT).

With the same techniques, you can set up a document to print any number of columns of labels. If you had four columns, you would need four .RV lines; five columns would require five .RV lines, and so forth.

Envelopes

To print directly on envelopes from the data file, create a document file formatted to print the address in the desired position. It is necessary to stop print for each envelope to be loaded; this may be accomplished by printing one "page" for each envelope and answering Y to **PAUSE BETWEEN PAGES?** when initiating MailMerge, or by putting the "pause" print control (^C) in the file. The following example assumes the return address is pre-printed on the envelope. Note that the NAME variable is used to add an "attention" item.

```

..ADDRESS1.ENV  print envelopes from ADDRESS1.DAT
.PL 40  "page" length in lines
.MT 0
.MB 0
.DF ADDRESS1.DAT
.RV COMPANY, ADDR1, ADDR2, ADDR3, NAME
.. ^C on next line stops to await envelope insertion
^C

```

```

&COMPANY&
&ADDR1&
&ADDR2&
&ADDR3&

```

```

attention: &NAME&

```

```

.PA  end "page" / roll envelope out of printer

```

Each time the control-C is encountered, print pauses (and the no-file menu appears). The operator loads the next envelope, then presses P to continue print. The number of blank lines above the address in the document, and the position to which the operator rolls the envelope into the printer, must be coordinated to achieve the desired positioning of the address. The page length set with the .PL at the beginning determines how far the carriage rolls after printing the address; we suggest setting it so the envelope ejects completely.

**OMITTING A LINE IF
THE DATA IS NULL**

Occasions arise where you want to allow for a data item which is usually absent, and where you want the line in which the data would be inserted to be omitted (rather than a blank line printed) when there is no data.

To handle these situations, enter zero length data (just enter the following comma in a data file; just press RETURN when prompted for data on the screen), and reference the variable in the form &NAME/O& where you wish the data inserted. The "/O" between the variable name and the following & cause MailMerge to omit the entire line if the data has a length of zero characters and the line in the document is otherwise blank.

For example, consider addresses. Up to here, we have shown all examples with three lines of address. However, to handle all possibilities, such as foreign addresses, suite or room numbers, name of recipient as well as name of company, as many as five or six lines may occasionally be needed. However, for the typical three-line address, you may not wish to print three additional blank lines after the address at the beginning of each letter.

You could begin a letter thus:

```
.OP
.DF ADDRESS.DAT
.RV COMPANY, ADDR1, ADDR2, ADDR3, ADDR4, ADDR5, NAME
```

June 16, 1980

```
&COMPANY&
&ADDR1/O&
&ADDR2/O&
&ADDR3/O&
&ADDR4/O&
&ADDR5/O&
```

```
Dear &NAME&,
...
```

In the above letter, only those address lines for which non-null data was present would print; the remaining address lines would be omitted. (If the /O's were not present, blank lines would print).

The data file for use with the above letter must be prepared with five address items, and a comma must always be entered for each item for which there is no data. (If the comma is omitted, MailMerge will read the next field, NAME, into the address, then read into the next line of the data file to obtain a value for NAME, resulting in a mess.)

A few lines out of a data file for the above letter might look like:

```
NORCAL Computers,1500 Highland Avenue,"Alameda, California",,,94501, Mr. Smith
Worldwide Inc.,Dept. M,Suite 400,1001 5th Ave,"New York NY",10099, Miss Doe
Jones Grocery, "Pioneer, California", , , , 99999, Mrs. Jones
```

Note that although the number of address items varies, every line in the data file contains seven items or places for items, delimited with six commas (not counting the commas inside the quotes). Some lines contain spaces after the commas; some do not; these spaces are not significant. The order of the items matches the .RV command in the letter. As shown, the zip code is always in the last address item (the sixth field in the record). This is for convenience in sorting and selecting with other programs; the uniform positioning is not needed to print the letter shown above.

/O in a variable reference causes the line to be omitted only if the variable is defined, has a length of zero characters, and the line in the document contains nothing else except spaces and possibly other /O references to other defined, null (zero length data) variables. If there is a non-blank character in the document line, or another reference to a variable which is not defined as null, the line will print. If the variable value contains any characters at all, including a space, the line will print.

When entering data, a data item can be made blank yet not null by giving it a value consisting of one (or more) spaces. This will force a line containing a /O reference to it to print (as a blank line), rather than be omitted. Enter " " (a space enclosed in quotes) in a data file, or press the space bar before pressing RETURN when entering data in response to a .AV dot command.

**Section 11
The MailMerge Option:
Multiple Tasks**

SETTING VARIABLES WITHIN THE DOCUMENT

Sometimes you will have a piece of data which you want to be able to change easily with the edit function, but which stays the same throughout a MailMerge operation. For such information, you may use a variable. The text to be inserted at each use of the variable is set with the .SV dot command; the variable name enclosed in &'s is used as usual at subsequent points where the variable value is to be inserted in the text.

For example, in any of the preceding form letter examples, you could use

.SV DATE, June 27, 1980

near the beginning of the document, and &DATE& where the date was to appear. This makes it unnecessary to enter the date (which probably remains the same for a large number of letters) from the terminal. This also makes it unnecessary to include it in a data file, yet makes it especially easy to change by editing the document. If it is at the beginning (the .SV may be placed before all the other dot commands), there is less possibility of inadvertently altering the format of the letter while editing the date line.

Use of .SV is particularly pertinent when a piece of data appears several times in the document, because only one edit (altering the .SV line) will change all occurrences.

Example of Setting Variables

For example, suppose you are a lawyer (or a lawyer's secretary) preparing a contract of a particular type between John Doe and John Smith. The names of the parties, John Doe and John Smith, appear several places in the contract. You are only preparing one such contract at present, but you expect that you may wish to prepare additional similar contracts between other parties in the future. You expect to print out several drafts, so you don't want to have to enter the names of the parties from the keyboard at each printing. Place

.SV PARTY1, John Doe
.SV PARTY2, John Smith

at the beginning of the contract, then use &PARTY1& and &PARTY2& as required throughout the text. When you later wish to prepare another similar contract, edit the .SV's.

Use of .SV in single-copy documents becomes especially useful when paragraphs of standard text are read in from separate files during MailMerge, using the file insertion facility (.FI command) as described later. Use variable references in the standard paragraphs for any items which may vary from document to document, and use .SV's (be sure the variable names match correctly!) in the invoking document to establish the texts to be inserted.

Set Variable (.SV name, value)

The .SV command sets the text to be inserted for the named variable at subsequent references.

After the variable name, one comma, then one space, if present, are passed up; the entire rest of the document line (up to the variable length limit of 200 characters), including any leading and trailing blanks, becomes the value of the variable.

To put a carriage return into the variable value, use a control-N in the .SV command. (To enter a control-N into the file, type control-PN.)

Do not use &'s around the name (unless you really wish insertion to occur before the dot command is executed).

Variable references may be used in the .SV command; the insertion will occur when the command is encountered.

Examples:

```
.SV DATE, June 27, 1980
```

```
.SV PARTY1, John Doe
```

```
.SV ADDRESS, 123 45th Street^NNew York, New York, 10099
```

```
.SV PARTIES, &PARTY1& and &PARTY2&
```

SCREEN DISPLAY

A dot command (.DM) may be imbedded in the document file to display messages to the operator during MailMerge. Each message appears on the next lower screen line; the screen scrolls up when full. Another dot command (.CS) will clear the display area of the screen and restart at the top, optionally displaying a message at the same time. Additional examples will be given after the following dot command descriptions.

Display Message (.DM [message])

The .DM command displays a message on the screen for the operator to read. The message is all text after the characters ".DM " (excluding the space after the M, if a space is present) to the end of the document line.

If no message is given, .DM leaves a blank line on the screen.

Each message appears below preceding messages, scrolling the screen up if the screen is full.

Variables may be inserted into the message (using the usual &NAME& form of reference), so that data can be displayed to the operator.

Examples:

```
.DM                               (leave blank line)

.DM This file prints order confirmation letter

.DM now printing chapter 7

.DM printing letter to &NAME&

.DM load envelope in printer, press P

.DM insert "receivables data" diskette in drive B
```

Clear Screen, [display message] (.CS [message])

The .CS command clears the MailMerge operator display area of screen and causes next .DM message, .AV prompt, or error message to appear on the top line of the display area. The brackets indicate that the message is optional.

If a message is given, it is then displayed, on the top line of the display area. The .DM description above applies also to the display of messages with .CS.

Examples of .CS:

```
.CS                               (just clear MailMerge display area)

.CS Press RETURN, P to stop, or Enter data for next letter
```

For example, the following could be used to display the name and address of the recipient of the letter being processed. This allows the operator to check the data as it is used, more easily than by watching the printer. Also, the printer runs several lines behind MailMerge's processing. Displaying the data is especially pertinent if DISK FILE OUTPUT is in use.

```
.. file EX1D.LET: example 1 with display added
.OP
.DF ADDRESS1.DAT
.RV COMPANY, ADDR1, ADDR2, ADDR3, NAME
.. next command clears display from previous letter off of screen
.CS
.. following commands display data just read
.DM &COMPANY&
.DM &ADDR1&
.DM &ADDR2&
.DM &ADDR3&
.DM &NAME&

(text continues here)
...
```

The above example shows one use of MailMerge's powerful ability to insert data into dot commands as well as into text.

FILE INSERTION

MailMerge's file insertion facility has numerous uses, including reading standard "boiler plate" texts from other files at print-time, using a file containing commands only to invoke the printing of several other files, doing initial processing (such as asking the operator for today's date) before repeatedly processing a file to print form letters, and structuring complex printing tasks to be performed with a single operator invocation of MailMerge.

The .FI Dot Command

The file insert dot command,

```
.FI filename
```

inserts a named file into the file now being processed. The inserted file is processed as though all commands and text in that file appeared in place of the .FI command, then processing of the file containing the .FI resumes with the line after the .FI command. (The insertion occurs only in the processing and printing done by MailMerge; the document file containing the .FI command is of course left unchanged.)

"Boiler Plate" Text

Commonly used paragraphs (or sentences or pages) of text can be entered onto separate files. Whenever one of these paragraphs is desired in another document, a .FI with the appropriate file name may be placed in that document, and MailMerge will perform the insertion at print-time. Variables set in the invoking document (the document containing the .FI) will be appropriately inserted at any references in the inserted file, provided of course corresponding variable names are used. This facility saves diskette space and shortens documents. This method of handling "boiler plate" is especially pertinent if you want to be able to update a standard paragraph and have all documents using it change: just edit the file containing the paragraph, and all documents invoking that paragraph from that file will reflect the change when next printed.

For example, you might use the following document file to print one of several form letters used in responding to inquiries:

```
..MRGPRNT3.TXT  
.FI HEADING.TXT  
  
.FI PARAG1.TXT
```

The products described in the above paragraphs may be ordered through your dealer, or direct from MicroPro International Corporation.

```
.FI ORDRINFO.TXT
```

Thank you very much for your inquiry. If I may be of further assistance, please do not hesitate to call or write.

Sincerely,

Chip Pood
Director of Marketing

The above would process the file HEADING.TXT (which might ask for, then print the recipient's name and address), then print a blank line, then process (execute commands and print text in) PARAG1.TXT, then print another blank line and the text shown (The products described ...), then ORDRINFO.TXT, then the rest of the text shown.

The file ORDRINFO.TXT might be invoked with .FI from numerous form letters. Whenever the ordering information changed, ORDRINFO.TXT could be edited and the change would be reflected in all the form letters.

When preparing standard "boiler plate" paragraphs on separate files to be inserted into documents at print time via .FI, be sure the boiler plate file ends with a carriage return: examine the editor screen when creating or changing the file, and make sure the "<" appears in the rightmost column after the last line of the file. **MailMerge will not automatically supply a missing carriage return.** If the carriage returns were missing in the above example, the intended blank lines would not print. If there were no blank lines after the .FI command, the last line of the boiler plate paragraph and the next line of the invoking document would be printed as a single long line, which generally isn't desirable.

Note

Advanced users might use boiler plate files not ending in carriage returns to concatenate SENTENCES from separate files into a paragraph. Use a SOFT carriage return before the .FI to prevent the carriage return after text preceding the .FI from printing, and use the .PF ON and .RM n commands described later to force MailMerge to format the paragraph as desired.)

Command Files

We will use the term command files for a "document" file that contains only (or mostly) dot commands, rather than text. A command file is not actually a separate file type, just a file into which you have entered mostly commands to direct printing operations, rather than text to be printed. Using the .FI

command, command files can be created for a number of useful purposes, including printing multiple files with one operator invocation of MailMerge, performing "initial processing" (such as asking the operator only once for today's date) before repeatedly processing a file to print form letters, and performing several printing tasks in sequence with only one operator invocation.

Printing Multiple Files

If you are creating a large document, such as a book, it is convenient to maintain the text as multiple files, for example, one file for each chapter or section. Multiple short files facilitate editing, and printing sections for proofing during revisions, and allow the whole book to grow larger than the capacity of a diskette. When a printout of the entire book was desired, the operator could use MailMerge with a command file which "inserts" each chapter or section in sequence. If the individual sections were on files named CHAPTER1 through CHAPTER4, the command file might be as follows:

```
.FI CHAPTER1

.FI CHAPTER2

.FI CHAPTER3

.FI CHAPTER4
```

The above file, when used with MailMerge, will cause CHAPTER1 through CHAPTER4 to be printed in sequence. The blank lines between the .FI's cause the next dot command to operate correctly even if the final carriage return is omitted at the end of one of the CHAPTER files; they will of course insert blank lines in the printout in the normal case. You might also want to put other commands, such as a .PA before each .FI, in the command file.

If the book grew to the point where the chapters had to be on multiple diskettes, the disk change option of the .FI command could be used. Place the following command file on drive A (also place the files required by WordStar, such as WSOVL.Y1.OVR and WSMSG.S.OVR, on drive A), and insert the disks with the CHAPTER files in drive B as required:

```
.FI B:CHAPTER1 CHANGE

.FI B:CHAPTER2 CHANGE

.FI B:CHAPTER3 CHANGE

.FI B:CHAPTER4 CHANGE
```

With the word "change" after the filename, MailMerge will ask the operator to insert the new diskette into the indicated drive, then press RETURN, before starting to process the new file.

Repeated Processing of an Inserted File

If the file inserted with .FI contains .DF and .RV commands (or the .RP command, described later), then the INSERTED FILE will be processed repeatedly until the data is used up. The file containing the .FI is not included in the

repetition; processing continues in the file containing the .FI only when the inserted file has been processed repeatedly until all the data has been read. As an example, consider the command file:

```
.FI EX1.LET
.FI LETTER2.LET
```



where file EX1.LET is the product announcement letter example from Section 9, and LETTER2.LET is some other document. When the above command file is used with MailMerge it first invokes EX1.LET. EX1.LET, as shown in Section 9, will access the data file ADDRESS1.DAT and print copies of the product announcement letter for each name and address in the data file. After all those letters have been printed, processing of the above command file will resume at the next line -- .FI LETTER2.LET.

File LETTER2.LET will then be invoked. That file might or might not be another document that uses a data file to print multiple letters; if it uses a data file, it could be the same data file (ADDRESS1.DAT) or a different data file, as specified in a .DF command.

Thus it can be seen that an inserted file may be processed repeatedly (printing multiple copies), while the invoking file (usually a command file) is processed only once. This capability may be used to advantage to perform initial processing, such as asking for certain data only once, or printing a header, and to perform once-only processing at other points in the printing job.

Initial Processing

The general form for doing certain processing only once before printing a letter (etc.) repeatedly is:

1. Create a command file that does the initial processing, then calls the form letter which is to be processed repeatedly (using .FI).
2. Make sure the commands which invoke repetition (.DF/.RV, or the .RP command described below) are in the form letter file, as opposed to in the command file.
3. Use MailMerge with the command file.

Asking for Data Only Once

To allow the operator to enter data, such as today's date, or the name of the sender of a letter, create a command file that uses .AV to ask for the desired variables, then invokes the form letter or other file that prints multiple copies. In the form letter, use the same variable names used in the .AV's in the command file. To initiate printing, use MailMerge with the command file.

An example of a general command file to ask for today's date only once and then print form letters is:

```
.AV "Enter today's date: ", DATE
.FI letterfile
```

where `letterfile` represents the name of some file which prints form letters and uses `&DATE&` where today's date is to print. Putting the `.AV` for `DATE` in the command file, not in the file with the letter, causes MailMerge to ask for the date once, then use the date entered in all letters printed. With this method, it isn't necessary to edit the letter file every day to get the correct date into it, nor is it necessary to key in the date for each letter printed.

Let's apply this same principle to the example used in Section 10. Create the command file:

```
.CS **** Print Order-Acknowledgement Letters ****
.AV "Enter today's date: ", DATE-TODAY
.AV "Enter ship date for this group of letters: ", SHIP-DATE
.FI EX2B.LET
```

Then create a file `EX2B.LET` which is the same as `EX2.LET` (or `EX2A.LET`) as shown in Section 10, except without `.AV`'s for `DATE-TODAY` and `SHIP-DATE`. When the above command file is used with MailMerge, WordStar will ask once for the date to show at the top of the letters, and the shipping date to be inserted in the letters, then repeatedly ask for the other information for each letter, and print the letter.

Getting the Data File Name from the Operator

In the examples that use data files we have shown so far, the name of the data file is incorporated in the `.DF` command in the letter document file. However, you may want to print a given letter with various data files at different times. This could be accomplished by editing the letter file to change the data file name for each print run, but it would be more convenient to be able to enter the data file name from the console after invocation of MailMerge. By using MailMerge's ability to insert variable data into dot commands, this can be achieved.

Prepare a command file called `LETTERS` containing the following:

```
.. file LETTERS
.DM Print Form Letters
.AV "Enter file name of letter to print: ", LETFILE
.AV "      Enter file name of data file: ", DATAFILE
.FI &LETFILE&
..
```

Document files to be printed via the above command file must contain

```
.DF &DATAFILE&
```

that is, a `.DF` command to specify the data file whose name the operator entered at the `.AV` for the variable `DATAFILE`, as well as a `.RV` command appropriate to whatever data file(s) are to be used.

When the above command file, `LETTERS`, is used with MailMerge, WordStar will ask for the name of the document file containing the letter to be printed, then ask for the name of the data file to be used in this printing of the letter, then proceed to print the letters by invoking the letter file whose name the operator entered (via `.FI &LETFILE&`). The separate command file is used for the `.AV`'s to prevent the `.AV`'s from being repeated (and the operator from having to enter the information again) for each letter printed.

Alternate Method: Using the Repeat Command (.RP)

In the preceding examples, a command file was used to perform initial processing, then a document invoked with `.FI` was processed repeatedly to print multiple letters or other documents. The reason the file called with the `.FI` was processed repeatedly is that the `.DF` command (for all cases using a data file) was located in the file called.

An alternative method is available, which permits locating the `.DF` in the command file if desired. You might wish to do this so part of the data could be read in the command file, or to make it unnecessary to have the variable name for the data file match in the command file and the letter file. The alternative method is to put

```
.RP
```

in the file which reads the data and prints the letters. `.RP` (along with a `.RV` in the same file) will cause this file to be processed repeatedly until all the data has been read, even if the `.DF` is in a different (invoking) file.

For example, consider the command file:

```
.DM Print Form Letters with .RP in Letter
.AV "Enter file name of letter to print: ", LETFILE
.AV "      Enter file name of data file: ", DATAFILE
.DF &DATAFILE&
.FI &LETFILE&
..
```

When the above command file is used with MailMerge, it will ask for a letter file name and a data file name, execute a `.DF` command for the specified data file, then invoke the specified letter file. The letter file whose name the operator enters should contain a `.RP` command, and a `.RV` command appropriate to the data file specified by the operator.

The specified letter file will be processed repeatedly due to the presence of the `.RP` command. (The command file would also be processed until the data is used up, due to the presence of the `.DF`, but since the letter uses up the data, no repetitions result.)

Using a Command File to Perform Multiple Tasks

Command files of the sort that perform initial processing, as discussed on preceding pages, may be extended to permit printing multiple files, each repeated for all records in a data file, with one operator invocation.

For example, the following prints letters using a data file, then prints envelopes using the same data file.

```
.DM Print Form Letters, then envelopes
.AV "Enter file name of letter to print: ", LETFILE
.AV "      Enter file name of data file: ", DATAFILE
.FI &LETFILE&
.FI ENVELOPES.DOC
..
```

The letter file name entered by the operator, and the file ENVELOPES.DOC, must both contain .DF &DATAFILE& and an appropriate .RV. Since the data was used up by LETFILE, the .DF to the same data file in ENVELOPES.DOC will start over at the beginning of the data.

File Insert (.FI filename [CHANGE])

The .FI command causes the contents of the named file to be inserted in place of the .FI command itself.

Processing proceeds as though the contents of the named file were present in place of the .FI command, except that if repeated processing is invoked in the inserted file (via .DF/.RV, or via .RP), only the inserted file is repeatedly processed — the file containing the .FI is not included in the repetition.

After the inserted file has been completely processed (all commands executed and all text printed, including any repetition invoked by commands in the file), processing of the invoking file resumes at the line after the .FI command.

Make sure that files inserted with .FI end with a carriage return, as none is automatically supplied upon return to the invoking file. This is especially important if the document repeats due to a .DF and/or .RP command.

A file may contain as many .FI's in sequence as desired.

The inserted file may itself contain .FI's to additional files, and those files may contain .FI's to further files, to a maximum "nesting level" of 8 .FI's deep. (If the nesting limit is exceeded, the specified file will be invoked, but processing will return only to the last 8 invoking files.)

When a .FI is the LAST LINE of a file, the .FI does not count in toward the limit of 8-deep nesting; as many files as desired may be thus "chained" with a .FI at the end of one file initiating printout of the next file.

The word "CHANGE" may follow the filename to request operator disk change before execution of the command.

Examples:

```
.FI PARAG1.TXT
.FI B:ORDERINF.DOC
.FI B:CHAPTER5    CHANGE
```


Caution

When a `.FI` command is the last line of a file, be sure a carriage return is entered to end the line -- i.e. be sure a "<" shows in the rightmost screen column of the `.FI` line. If the `RETURN` is omitted, repeated processing, if in use, may malfunction. (Most other dot commands will work correctly at the end of a file even if the final `RETURN` is omitted.)

Repeat Until End of Data (.RP)
Repeat n Times (.RP n)

`.RP` invokes repeated processing of the file containing the command.

`.RP n` (where `n` is a number) causes the file to be processed that many times (producing that many copies of whatever printout the file produces).

If `.RP n` causes a file containing a `.DF` to be processed again after data file has been entirely read, the data file will be started over from the beginning.

`.RP` with no number after it causes the current file (the file containing the `.RP`) to be processed until all data in the data file has been used. `.RP` is effective if a `.DF` has been executed (in the current file or in one that invoked the current file with `.FI`), and there is a `.RV` in the current file or a file inserted into the current file with `.FI`.

`.RP` with no number is useful when the data file has been opened in a file that invoked the current file with `.FI`, to cause the current file, rather than the file containing the `.DF`, to be processed repeatedly.

`.RP` with no number is redundant if there is a `.DF` and a `.RV` in the current file (the file containing the `.RP`), as the `.DF/.RV` combination will invoke repeated processing.

`.RP` with no number has no effect if no data file is in use, or if no `.RV` has been executed when the end of the current file is reached.

Examples:

- `.RP 10` Process the current file 10 times. If the current file was invoked from another file with `.FI`, processing of the invoking file will resume only after the current file has been repeated 10 times.
- `.RP` Process the current file until the data file is used up. Pertinent only when `.DF` command is in a file which invoked the current file with `.FI`.

Caution

When a `.RP` command is the last line of a file, be sure a carriage return is entered to end the line -- i.e. be sure a "<" shows in the rightmost screen column. If the `RETURN` is omitted, repeated processing may fail to occur. Placing `.RP` near the beginning of the file is suggested.

Note

.RP 0 prints the document once; it is equivalent to .RP 1.

CHANGING DISKETTES

The .FI (File Insert) and .DF (Data File) dot commands both allow the word "CHANGE" to follow the file name to direct MailMerge to ask the operator to change diskettes before accessing the inserted document file or the data file. When processing such a command, MailMerge will display a message showing the file name, including the drive name (with the current drive filled in if none was specified), then wait for the operator to press RETURN to signify that the diskette has been inserted. If you wish to display additional instructions to the operator, the .DM and/or .CS dot commands (described above) may be used.

When the operator presses RETURN, MailMerge will look for the file. If the file is not found, a message will be displayed and the operator will again be asked to insert the correct diskette.

If the disk change resulted in removing the diskette containing the file containing a .FI command, another disk change prompt will automatically occur at completion of the inserted file, before continuation of processing of the invoking file.

When using the disk change option, the drive in which the diskette is to be changed must NOT contain any of the files always required by WordStar -- WSOVLY1.OVR and WSMMSG.S.OVR -- nor (for the .DF command) the document file being printed, nor (for the .FI command) the data file in use, if any, nor the disk output file, if one is in use. Generally, this is achieved in a two-drive system by having all of those files on drive A, and changing diskettes in drive B. Hence, be sure to put "B:" before the file name in the .FI or .DF command.

If the word CHANGE occurs in a .FI or .DF command, but a file on a drive containing a required file is specified, MailMerge will display a message "cannot change diskette in drive b:" then attempt to execute the command with the diskette(s) now inserted.

When diskette change is NOT specified, or when the diskette change request in the dot command is not executed because it calls for removal of a diskette containing a file which must remain on line, MailMerge will look for a file on drive A and the current drive, if different, as well as on the drive specified in the dot command. If the file is not found, a message will be displayed and processing will then proceed without executing the dot command.

Section 12 The MailMerge Option: Print-Time Operations

PRINT-TIME LINE-FORMING

We will discuss here, first, the automatically-invoked reformatting performed by MailMerge after variable insertions, and, second, the dot commands that permit the advanced user to control print-time reformatting if desired.

Automatic Reformatting

After every (mid-paragraph) variable insertion, MailMerge automatically reforms the rest of the paragraph. This reforming will result in margin re-alignment if the data inserted is of a different length than the variable name and &'s present in the text when the lines were originally formed in the edit function.

The action is similar to that of the paragraph reform command (^B) in the edit function. The left margin, right margin, line spacing, and justified versus ragged right are determined by inspecting the text in the paragraph before insertion of the variable data. (The margins, etc. set in the editor are not permanently recorded in the document file).

When preparing a document to be used with MailMerge, you should bear in mind that if any variables are used in mid-paragraph, such reforming will occur. Since the inserted data is often longer than the variable reference, the automatic print time reforming may move words at the end of a line down to the next line, and may even make the paragraph one or more lines longer than it was before variable insertion. Thus, the page breaks may not occur at printout exactly as they show on the screen during editing.

To insure attractive pagination of the printout even if the automatic reforming adds lines to the document, we suggest making more generous use of .CP dot commands (Conditional Page, Section 7) than you might otherwise make.

Another trick may be used to make the text during editing appear more like it will at printout: if the typical text to be inserted for the variable is longer than the variable name, type spaces between the &'s and the variable name. For example, enter "& ADDRESS3 &" instead of "&ADDRESS3&" if ADDRESS3 is used in mid-paragraph. Insert such spaces only before and after the variable name, not in the middle of the variable name. Note: if word wrap breaks the line at these spaces, MailMerge will still detect the variable correctly.

It is possible that on occasion the automatic line reformer may do something you don't want done to your text. For example, if you have a line ending in a hard carriage return, and a long variable value is inserted into it, MailMerge may word-wrap the line for printout even if you intended it to remain a single very long line. Such situations can be corrected by adding one or more of the dot commands described shortly to override the automatic reforming and suppress reforming or reform to your specifications at print time.

Controlling Print-Time Line-Forming

The advanced user may wish to control the operation of the print-time line-former for any of several reasons, including the following:

- o to print with different margins than used for editing, as to permit editing text with lines shorter than the screen width, then printing wider than the screen.
- o to force ragged right printout of text justified during editing.
- o to completely suppress print-time line-forming, so that the input lines are printed with no changes except for variable insertions.
- o to set the desired margins in cases where unusual input produces output other than as desired.

The dot commands that permit control over the print-time line-former will be described after a little background on the nature of the print-time line-former.

The Print-Time Line-Former

The print-time line-former actually consists of two sections, the input scanner and the output formatter. The **input scanner** examines all text being used with MailMerge BEFORE variable insertion, and determines:

The left margin: print column in which text begins

Whether the text appears to be justified or ragged right

The right margin: at soft carriage return, column in which text ends.

The line spacing: number of soft carriage returns between lines

Whether there is a reason to reform this line if not otherwise specified by user: e.g. a variable reference.

The **output formatter** processes all text **after** variables have been inserted. It may pass text through unchanged, or it may form lines anew. The output formatter by default takes its instructions from the input scanner; through the use of dot commands, the user can imbed some or all of the desired instructions to the output formatter in the document.

By default, the output formatter will pass all text through unchanged until a variable insertion (variable reference) is seen, at which point it will form lines, starting with the line containing the variable insertion, and stopping at the next hard carriage return, line feed, or form feed character, or at end of file. This is referred to as **discretionary** line-forming; line-forming can also be set ON or OFF by dot command.

When the output formatter is forming lines (as opposed to passing input text through unchanged), it takes the left margin, right margin, line spacing, and justified versus ragged right from the input text (as determined by the input scanner). However, all of these quantities may, if desired, be specified by

dot command, independently of each other and of whether line-forming ON is specified by dot command.

For precise control of format even with mid-paragraph margin changes, dot commands may be imbedded in mid-paragraph as follows. First, in the edit function, enter the paragraph and form as desired in the document. Place the cursor at the beginning of the line above which a dot command is desired. Press ^N. Enter the desired dot command, presumably one of the commands we are about to describe. The dot command will now have a soft carriage return before it; the hard carriage return after the dot command will not be taken as a paragraph terminator by MailMerge. MailMerge will detect the dot command and apply it at the desired point even if (due to print-time line-forming) it falls in mid-line by the time the output formatter reaches it. If it is desired to reform the paragraph in the edit function, it is necessary to delete the dot command, reform, then re-enter the dot command again.

Dot Commands to Control Print-Time Line-Forming

All of the following are normally unneeded; example cases where they might be desired were given above and will be elaborated after the dot command descriptions. For all of the following, the default is DIS (discretionary). Note that the first command, .PF, can be used to force print-time line-forming on, and that all of the remaining commands have NO EFFECT except when print-time line-forming is on.

DIS
Print-Time Line-Forming (.PF OFF)
ON

.PF DIS (default): Leave print-time line-forming to MailMerge's discretion. MailMerge will start print-time line-forming upon seeing a variable reference, and stop at a hard carriage return.

.PF OFF: Completely suppress print-time line-forming, even if a variable reference is seen in mid-paragraph and inserting the variable changes the line length.

.PF ON: Turn print-time line-forming on and leave on until a .PF OFF or .PF DIS is encountered. Reform all lines, using input left margin, right margin, justification, and line spacing, except as specified by additional dot commands. Normally, this would be used to make the margins or some other characteristic of the output different from the input; one or more of the additional dot commands whose descriptions follow must also be given to specify this formatting change.

Right Margin (.RM DIS)
n

.RM DIS (default): Use input right margin as right margin for forming lines at print-time, if line-forming is performed.

.RM n: Use the specified column n (a number between 1 and 240) as the right margin column number for forming lines at print-time, if line-forming is being performed.

.RM has no effect except when print-time line-forming is ON, that is, when a variable reference has been seen in the current paragraph or when a .PF ON command has been issued.

Left Margin (.LM DIS)

n

.LM DIS (default): Use the input left margin as the left margin for print-time line-forming.

.LM n: Use column n (a number 1-240) as the left margin when print-time line-forming. Use a specified left margin with great caution if your document contains hanging indents or text left of the left margin. Generally, leaving print-time line-forming off or to MailMerge's discretion (or at least, leaving the left margin to MailMerge's discretion) will follow hanging indents best.

.LM has no effect except when print-time line-forming is ON, that is, when a variable reference has been seen in the current paragraph or when a .PF ON command has been issued.

Line Spacing (.LS DIS)

n

.LS DIS (default): Make output line spacing match input line spacing when forming lines at print time.

.LS n: Use line spacing n (a number 1 to 9) when forming lines at print time.

.LS has no effect except when print-time line-forming is ON, that is, when a variable reference has been seen in the current paragraph or when a .PF ON command has been issued.

DIS

Output Justification (.OJ ON)

OFF

.OJ DIS (default): If forming lines at print time, form justified lines if input appears justified (contains mid-line soft spaces and constant right margin), or form ragged right lines if input appears ragged right (contains no mid-line soft spaces, and right margin has frequent small variations). See .IJ ON/OFF, which can force the interpretation of the input.

.OJ ON: Form justified lines whenever forming lines at print-time.

.OJ OFF: Form ragged right lines whenever forming lines at print-time, regardless of whether input appears ragged right or not.

.OJ has no effect except when print-time line-forming is ON, that is, when a variable reference has been seen in the current paragraph or when a .PF ON command has been issued. If you want to force all output justified or ragged regardless of the input, use .PF ON in addition to .OJ ON/OFF.

ON
Input Justification (.IJ OFF)
 DIS

.IJ ON: When forming lines at print-time, interpret input as justified: follow all right margin changes if **.RM DIS** (the default) is in effect; justify the output if **.OJ DIS** (the default) is in effect.

.IJ OFF: When forming lines at print-time, interpret the input as ragged right: when right margin varies a few columns, find largest value in vicinity and use this for output line-forming if **.RM DIS** (the default) is in effect; output ragged right if **.OJ DIS** (the default) is in effect.

.IJ DIS (default): When forming lines at print-time, interpret the input like it looks: small variations in right margin indicate ragged right; constant right margin and soft spaces between words indicate justified; confusion of the input scanner is conceivable with unusual text in the document.

.IJ has no effect except when print-time line-forming is ON, that is, when a variable reference has been seen in the current paragraph or when a **.PF ON** command has been issued.

.IJ is intended to force the action of the input scanner in the (unlikely) event that unusual text confuses it, and for exercising MailMerge. When your intent is to form justified output from ragged right input, or vice versa, use **.OJ** (above), not **.IJ**.

EXAMPLES OF PRINT-TIME LINE-FORMING

Printing with Different Margins

To make the right margin be 96 when the text is used with MailMerge, even though you have formed it while editing to a smaller right margin for on-screen readability, use

.PF ON	force print-time line-forming on
.RM 96	force print-time right margin to column 96

To revert to printing text as input, with discretionary line-forming at variable insertions, use

.PF DIS	discretionary print-time line-forming
.RM DIS	if forming lines, use input right margin

Of course, when you change the margin at print-time, the page breaks will not fall at printout where the editor shows them during editing.

Caution

Changing the margin at print-time is recommended only where there is no text outside the margins, except to the left of the first line of a paragraph (e.g., a section number).

Forcing Ragged Right

To force ragged right printout of text justified during editing, use

```
.PF ON           force print-time line-forming ON
.OJ OFF         force ragged right output
```

The above commands leave the margins and line spacing to MailMerge's discretion; it will follow the input. The input right margin will still be determined according to the appearance of the text: if the text appears justified, all right margin variations will be transmitted line-by-line to the output formatter; if the input text appears ragged right, the input scanner will find the largest right margin in several lines or the entire paragraph, and transmit that value to the output formatter.

Suppressing Print-Time Line-Forming

To suppress print-time line-forming, so that the input lines are printed with no changes except for variable insertions, use

```
.PF OFF
```

For example, suppose your document contains the line

```
&ADDR1& &ADDR2& &ADDR3& &ADDR4&
```

followed by a hard carriage return. Further suppose that this line comes out 120 columns long after insertion of the variables in some instances. If the line is not preceded by other long lines, MailMerge may, if left to its discretion, wrap the line into two or more lines, using the right margin determined at the last soft carriage return, or the editor default right margin (usually 65) if at beginning of file. To prevent such wrap, put .PF OFF before the line, and .PF DIS after the line to return to default discretionary formatting.

Setting Margins

To set the desired margins in cases where unusual input produces output other than as desired. Suppose your document contains the line

```
&NAME&, &ADDR1&, &ADDR2&, &ADDR3&, &ADDR4&.
```

followed by a hard carriage return. Further suppose that this line comes out up to 150 characters long after insertion of the variables. Suppose you wish the line formed into a paragraph of as many lines as necessary, with right margin 55, despite the fact that the preceding text has right margin 60. MailMerge, left to its discretion, may wrap the line into multiple lines, using the right margin determined at the last soft carriage return, or the editor default right margin if at beginning of file. To get the desired forming action, then revert to normal default discretionary forming, use

```
.RM 55
&NAME&, &ADDR1&, &ADDR2&, &ADDR3&, &ADDR4&.
.RM DIS
```


(An alternate, and simpler, method would be to add spaces between the ampersands and the variable names to make the line more than 55 characters long, then form it to right margin 55 with ^B in the editor. The resulting soft carriage return at column 55 will cause discretionary line-forming to produce the desired result.)

MAILMERGE OPERATION



This section discusses the initiation, stopping, and resumption of MailMerge. The reader is assumed to be familiar with operation of the regular print command (P on the WordStar no-file menu), as described in Section 8. Reprinting selected form letters from a run, for example to correct them for erroneous data not previously detected, is also discussed.

MailMerge will operate only if the file MAILMRGE.OVR is on the diskette in drive A. (The file may alternately be on the diskette in the logged drive, if a drive other than A is logged; we recommend, however, that you keep MAILMRGE.OVR on drive A to allow you to change logged drives freely.) The file MAILMRGE.OVR is supplied with the WordStar/MailMerge enhancement package.

Initiating MailMerge

MailMerge is initiated by pressing M at the WordStar no-file menu. Provided MAILMRGE.OVR is present, WordStar will next ask:

NAME OF FILE TO MAILMERGE? █

Type in the name of the document file to be used with MailMerge, then press either ESCAPE or RETURN. As with the regular print command (Section 8), pressing ESCAPE will cause printing to begin immediately, with all options defaulted. Pressing RETURN will evoke a series of options questions, as follows:

NAME OF FILE TO MAILMERGE?

For default press RETURN for each question:

START AT PAGE NUMBER (RETURN for beginning)?

STOP AFTER PAGE NUMBER (RETURN for end)?

NUMBER OF COPIES (RETURN for 1)?

DISK FILE OUTPUT (Y/N)?

USE FORM FEEDS (Y/N)?

SUPPRESS PAGE FORMATTING (Y/N)?

PAUSE FOR PAPER CHANGES BETWEEN PAGES (Y/N)?

Ready printer, press RETURN:

If Disk File Output is selected, an additional prompt will be displayed:

OUTPUT FILE NAME?

and the Ready Printer prompt will not be displayed.

All of the above questions except NUMBER OF COPIES? are the same as for the regular print commands, and the descriptions in Section 8 apply. In most cases, it will suffice to press RETURN to most or all of the options questions.

The **PAUSE FOR PAPER CHANGE BETWEEN PAGES** option is commonly used when printing form letters, to cause MailMerge to pause at the top of each "page" while you load a new sheet of letterhead stationary into your printer. After inserting the letterhead and positioning it as required, press P to resume printing.

The **NUMBER OF COPIES?** question is used to print two or more duplicate copies. To print, say, three copies of a document (usually not a form letter), press 3 and **RETURN** at this question. Between copies, MailMerge will go to the top of the next page, reset the page number to 1, set all the page format parameters (paper length, top margin, character width, etc, as described in Section 7) to their default values, and turn boldface, underline, and the other print enhancements off.

A **NUMBER OF COPIES** other than 1 or just **RETURN** is NOT normally entered when printing form letters using a data file. The number of copies does not relate to the number of letters, but to the number of copies of EACH letter. If you answer, for example, three to this question when initiating a MailMerge of form letters, one letter to each recipient will be printed, then the entire set of letters will be printed again, and then again, for a total of three copies of the entire set of letters.

During Printing

While MailMerge is printing, the single-entry MailMerge "menu" appears at the top of the screen

P = STOP PRINT

to indicate that P may be pressed to stop printing. The portion of the screen below this "menu" is used to display error and warning messages, messages specified by .DM dot commands in the document, and to ask for and accept input of data under the control of .AV dot commands in the document. This area of the screen may also be cleared, via a .CS dot command in the document. When the screen fills with messages, the screen is scrolled up when necessary to make room to add another message at the bottom.

If file directory display (F command) was left ON at the no-file menu, the file directory will remain on the bottom of the screen until displaced by messages as described in the preceding paragraph. Before using MailMerge with a document which uses the screen for data input, especially a document that repeatedly clears then re-uses the screen, we suggest turning file directory display OFF at the no-file menu.

When MailMerge asks for operator data entry under the control of commands in the document, type the desired data then press **RETURN**. The usual WordStar control characters may be used (before **RETURN** is pressed) to correct the entry and/or use the old entry -- ^S, ^D, ^Y, ^R, and others, as described in Table 1-3. In particular, ^R will evoke the previous entry for the same datum (the current value of the MailMerge variable being asked for). To leave the datum unchanged, you need only press ^R then **RETURN**.

After Printing

When MailMerge completes or is interrupted with the P command, and there are messages on display on the screen, the prompt

Read screen, then press RETURN: ■

is displayed. This is to make sure the operator has an opportunity to read everything on the screen, before the screen is cleared and the no-file menu is displayed.

Stopping MailMerge

To stop MailMerge, enter P. The prompt

TYPE Y TO ABANDON PRINT, N TO RESUME, ^U TO HOLD ■

will be displayed, and the printer will stop at the end of the line it is currently printing. To abandon the print, press Y. To leave the print paused, while making it possible to resume later, press ^U. Entering P later at the no-file menu will resume print. To resume with no intervening commands, press N (or any other key) when resumption is desired.

When MailMerge is awaiting data entry at a .AV dot command (cursor is after a prompt on the lower part of the screen, not after P=STOP PRINT on the upper part of the screen), and you wish to stop print, press ^U, the WordStar interrupt character. The prompt

*** INTERRUPTED *** Press ESCAPE key ■

will appear. Press ESCAPE and P in rapid succession. The "TYPE Y TO ABANDON PRINT ..." will appear next, as described above. If print is later resumed, the request for data entry will be repeated. (This technique of pressing ^U before pressing P is necessary to cause the P to be taken as a stop print command, rather than as part of the data being requested).

Resuming MailMerge

To resume MailMerge when paused (stopped), press P at the no-file menu. MailMerge can become paused due to a P entered by the operator when printing, due to the operation of the PAUSE BETWEEN PAGES option, or due to a print pause control character (^C) in the document being printed. When MailMerge is paused, the status line (top screen line) will show the phrase MAILMERGE PAUSED, the no-file menu will be on the screen, and the line in the no-file menu for P will read P=CONTINUE PRINT.

Reprinting Selected Form Letters

After printing a run of form letters using a data file, you may have several letters you wish to reprint--due to errors in the data file, incorrect insertion of the paper in the printer, a printer paper jam, etc. To reprint selected letters, create a temporary data file containing only the data for the letters to be reprinted, then print the same document file with this temporary data file.

First edit the data file (or use DataStar) to correct any bad data, for future use. Then make a copy of the data file and delete the data for the letters that were successfully printed. The deletions can be accomplished quickly using the Find command and block delete. If the document file containing the letter is not set up for operator entry of the data file name, make a copy of it also, and edit in the temporary data file name. Then use MailMerge again to obtain your reprinted letters.

An alternate method of reprinting selected letters is possible using the **START AT PAGE** and **STOP AFTER PAGE** options, but only if the document contains no **.PN** commands. Typically, there will be no **.PN** in the letter if the letter prints without WordStar-generated page numbers, i.e. if it contains a **.OP** command. In this case, the (non-printed) page number will increase as the letters are printed. To reprint, for example, the tenth and eleventh one-page letters, invoke MailMerge for the letter document and enter 10 at the **START AT PAGE** question and 11 at the **STOP AFTER PAGE** question.



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